

AB (1996) Hull Structural Steel Plates 100mm (4.0 in.) and Under

(Reference to all data below shall be made to American Bureau of Shipping)

Grade	Chemical Composition ¹⁾ %													
	C	Si ²⁾	Mn	P	S	Cu ³⁾	Cr ³⁾	Ni ³⁾	Mo ³⁾	Cb (Nb) ^{4) 5)}	V ^{4) 5)}	Al ^{4) 6)} (acid soluble)	Ti	N
	maxima unless stated													
A	0.21 ⁷⁾	0.50	(2.5 x C min)	0.035	0.035	¹⁰⁾	¹⁰⁾	¹⁰⁾	¹⁰⁾	-	-	-	-	-
B	0.21	0.35	0.80 ⁸⁾	0.035	0.035	¹⁰⁾	¹⁰⁾	¹⁰⁾	¹⁰⁾	-	-	-	-	-
D	0.21	0.10 ~0.35	0.60	0.035	0.035	¹⁰⁾	¹⁰⁾	¹⁰⁾	¹⁰⁾	-	-	-	-	-
E	0.18	0.10 ~0.35	0.70	0.035	0.035	¹⁰⁾	¹⁰⁾	¹⁰⁾	¹⁰⁾	-	-	-	-	-
AH32	0.18	0.10 ~0.50	0.90 ⁹⁾ ~1.60	0.035	0.035	0.35	0.20	0.40	0.08	0.02 ~0.05	0.05 ~0.10	0.015 min	0.02	-
DH32	0.18	0.10 ~0.50	0.90 ⁹⁾ ~1.60	0.035	0.035	0.35	0.20	0.40	0.08	0.02 ~0.05	0.05 ~0.10	0.015 min	0.02	-
EH32	0.18	0.10 ~0.50	0.90 ⁹⁾ ~1.60	0.035	0.035	0.35	0.20	0.40	0.08	0.02 ~0.05	0.05 ~0.10	0.015 min	0.02	-
AH36	0.18	0.10 ~0.50	0.90 ⁹⁾ ~1.60	0.035	0.035	0.35	0.20	0.40	0.08	0.02 ~0.05	0.05 ~0.10	0.015 min	0.02	-
DH36	0.18	0.10 ~0.50	0.90 ⁹⁾ ~1.60	0.035	0.035	0.35	0.20	0.40	0.08	0.02 ~0.05	0.05 ~0.10	0.015 min	0.02	-
EH36	0.18	0.10 ~0.50	0.90 ⁹⁾ ~1.60	0.035	0.035	0.35	0.20	0.40	0.08	0.02 ~0.05	0.05 ~0.10	0.015 min	0.02	-
AH40	0.18	0.10 ~0.50	0.90 ⁹⁾ ~1.60	0.035	0.035	0.35	0.20	0.40	0.08	0.02 ~0.05	0.05 ~0.10	0.015 min	0.02	-
DH40	0.18	0.10 ~0.50	0.90 ⁹⁾ ~1.60	0.035	0.035	0.35	0.20	0.40	0.08	0.02 ~0.05	0.05 ~0.10	0.015 min	0.02	-
EH40	0.18	0.10 ~0.50	0.90 ⁹⁾ ~1.60	0.035	0.035	0.35	0.20	0.40	0.08	0.02 ~0.05	0.05 ~0.10	0.015 min	0.02	-
FH32	0.16	0.10 ~0.50	0.90 ~1.60	0.025	0.025	0.35	0.20	0.80	0.08	0.02 ~0.05	0.05 ~0.10	0.015 min	0.02	0.009 ¹¹⁾
FH36	0.16	0.10 ~0.50	0.90 ~1.60	0.025	0.025	0.35	0.20	0.80	0.08	0.02 ~0.05	0.05 ~0.10	0.015 min	0.02	0.009 ¹¹⁾
FH40	0.16	0.10 ~0.50	0.90 ~1.60	0.025	0.025	0.35	0.20	0.80	0.08	0.02 ~0.05	0.05 ~0.10	0.015 min	0.02	0.009 ¹¹⁾

Notes:

- 1) The contents of any other element intentionally added is to be determined and reported
- 2) Where the content of soluble aluminium is not <0.015%, the minimum required silicon content does not apply
- 3) These elements may be reported as ≤ 0.02% where the amount present does not exceed 0.02%
- 4) The indicated amount of aluminium, niobium and vanadium applies when any such element is used singly. When used in combination, the minimum content in 2/1.5.2d will apply
- 5) These elements need not be reported on the mill sheet unless intentionally added
- 6) The total aluminium content may be used in lieu of acid soluble content, in accordance with 2/1.5.2d
- 7) A maximum carbon content of 0.23% is acceptable for Grade A sections
- 8) Grade B steel of cold flanging quality or where fully killed, the lower limit of manganese may be reduced to 0.60%
- 9) Grade AH 12.5mm and under in thickness may have a minimum manganese content of 0.70%
- 10) The content of nickel, chromium, molybdenum and copper are to be determined and reported. When the amount does not exceed 0.02%, these elements may be reported as ≤ 0.02%
- 11) Chemical Composition of N will be 0.012% if Al is present
- 12) For Grade A, rimmed steel sections may be accepted up to and including 12.5mm (0.5 in.)
- 13) Grade D steel over 25mm and Grade E steel are to contain at least one of the grain refining elements in sufficient amount to meet the fine grain practice requirement (See 2/1.3.2d)